

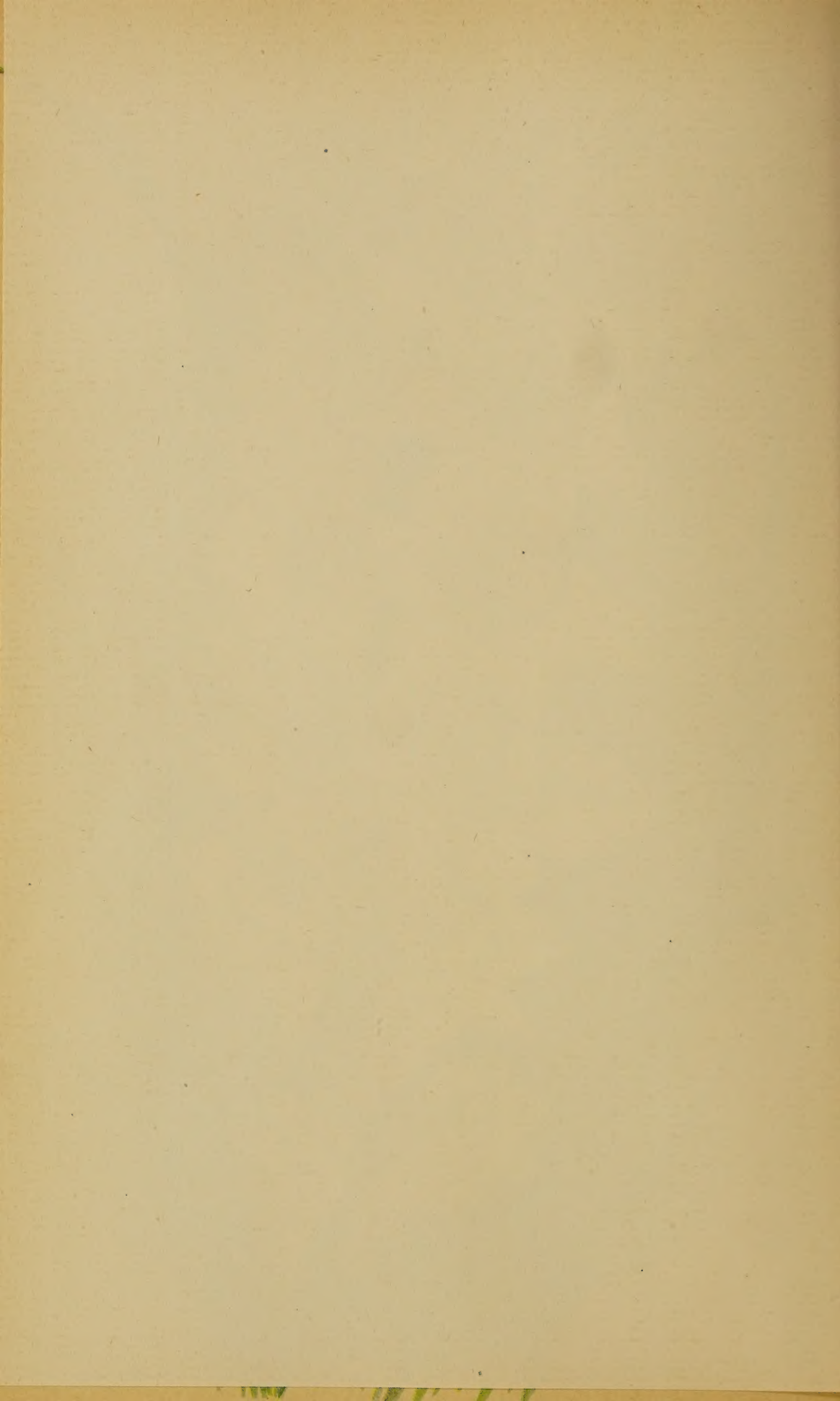
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1/2 NAT. SIZE

GLADIOLUS-"INNOCENCE"





FEBRUARY, 1885.

FRUIT-GROWING, as a business, is especially adapted to some regions, and to some restricted localities. This truth, in relation to certain kinds of fruits, is well comprehended, but, regarding others, less attention is given to it than good judgment demands. Outside of certain well defined areas no one would think of planting Peach orchards and vineyards for profit; and more than this, within the past fifty years the adaptability of certain localities for the profitable production of these fruits has greatly changed, in many cases the result, probably, of deforesting large tracks of country.

The Heart Cherries, which are widely grown in the Central and Eastern States, are unsuited to the west, where only some kinds of Dukes and Morellos can be raised, and some of these, which have gained a reputation for hardiness, after flourishing a few years, unexpectedly fail. Many kinds of fruit can often be raised in perfection in gardens where they have more or less protection and shelter from buildings and trees in the neighborhood, which, when planted out on a large scale in the same locality, utterly fail in a short time. Twenty-five and thirty years since the greatest expectations were entertained by many of good incomes from Pear raising, and immense numbers of Pear trees were planted in all parts of the country, and

to-day we know how baseless were those hopes, and how ill adapted were many of the sites and localities where these orchards were planted. Notwithstanding all the efforts made to secure suitable varieties of Apples for the climates of Illinois, Missouri and Iowa, and how great these efforts have been only those engaged in the work, or those who have been well informed for many years of the labors of the horticulturists of those States, can know, yet now, when the trees have come into full bearing and the demand is made upon them for a steady supply of fruit, they are giving out in this locality and that, and many who have devoted years to the rearing of these orchards are finding them, at last, profitless at a time when they should be yielding suitable returns for the capital and labor they have received.

A new lesson is being learned, which is, that certain locations that were thought to be favorable for Apple orchards are poorly suited to them, and that others possess advantages heretofore unknown.

The small fruits, Strawberries, Raspberries, Blackberries, Currants and Gooseberries, are more cosmopolitan, and yet these are raised on a large scale in some places better than in others. These facts are now presented to impress the thought of the reader of the importance of suitable locality when engaging in fruit culture.

There is too much indiscriminate advice given by the press in regard to fruit raising. Again, tree dealers and nursery agents, seeking a market for their wares, circulate wild statements about the profits of the industry, and at a time like the present, when the prices of grain are low, it is not difficult for them to induce numerous persons in almost every community, who have not special fitness or experience for the work, to undertake, at least in a small way, the planting of orchards or small fruits. It requires no highly gifted seer to perceive that most of these efforts will be abortive. The fact is, the wrecks of ill-conceived fruit plantations are strewn over the whole country. We have no desire to say a word that may discourage any one from engaging in fruit culture who will attempt it in a rational and business-like manner; but we would warn the inexperienced to look on both sides of the subject, and it has two sides, one of which is not the rose-colored one that is usually painted by newspaper writers.

Orchards and vineyards require considerable land to be devoted to them, which usually needs special preparation to fit it for the purpose; and its after cultivation for successive years, with the added interest and necessarily attendant expenses, make a heavy outlay by the time the bearing stage arrives, and it is only with fair crops and prices that suitable returns are received. The remarkable instances of large profits in fruit-growing, it must be remembered, are the exceptional ones, while the history of the ordinary cases are seldom written, and the failures are buried from public view.

The intelligent and energetic man, who, with well arranged and well matured plans, engages in fruit culture in a suitable location, is almost sure of reasonable success, and if he has a special fondness for the work he has a superior adaptation to it; but the happy-go-lucky, thriftless soul may never hope, if he can have such an aspiration, that this occupation will lift him out of the rut of incompetency to which his self-imposed, or inherited, slothfulness has fitted him.

The fruit-grower needs to have a courageous heart, and an abounding faith in his pursuit. He has numerous enemies with which to contend and to conquer; unfavorable seasons are not infrequent;

numerous insects and parasitic fungi are constantly disputing possession of his plants, trees and fruits; a general business depression, or an excessive supply of fruit often deprives him of all or nearly all profits. But these difficulties are probably not greater than those attending many other pursuits.

Crops of small fruits can be obtained the second and third year from planting for this reason, and, also, because with a comparatively small outlay the stock plants can be procured from which increase can be made as desired, and because these crops can be more generally raised throughout the country, many more engage in raising them than those kinds of fruits requiring a longer time to come to a bearing state. For the same reasons there are greater fluctuations of the quantities of these fruits sent to market in a fresh state, and of the prices they bring. On the other hand, the ease and rapidity with which, with the exception of the Strawberry, these fruits can be dried, and their value in this condition are points greatly in their favor. Fruit drying is a necessary part of profitable small fruit culture.

In regard to raising fruit beyond the necessary family supply, as a part of the farm crop, it may be said, that this is practiced to a considerable extent, and with more or less success. Unless, however, it is a predominant interest, or at least one of considerable importance it is too frequently neglected, when other farm work is most pressing, often sacrificing the crop, or at least the profit of it. Some farmers have the genius, if it may so be called, to manage a few acres of fruit very cleverly, and do it without injury to the rest of the farm; but, as a rule, fruit-growing is best conducted as a business of itself.

We would not be understood that every farm should not, if possible, raise enough fruit for its own supply, and there are few farms where it cannot be done, the same as there are few parts of the country where a plentiful family supply of fruit cannot be raised in the garden. The distinction between fruit growing for the family and fruit growing for market is very clear, and while universal attention to the former cannot be urged too persistently, the latter should be undertaken only with the most intelligent preparation.

A HANDSOME WINDOW STAND.

The engraving presented on this page has been prepared from an illustration in an English journal, *The Gardeners' Magazine*. It represents a window plant-stand wholly constructed of galvanized iron. The form is light, neat and well adapted to afford the plants a full supply of light, and to allow them to be seen to the best

advantage. Galvanized iron is a very suitable and lasting material for a plant stand of this kind, and when bronzed, japanned or painted would always appear neat and pretty. But, if desired, it could be a very rich piece of furniture made from choice and beautiful woods elaborately worked, and be fitted with iron



trays to hold the plants. In the present case it is shown filled with foliage plants, Palms, Ferns, variegated-leaved Begonias and others. As an ornament for a library, reception or sitting-room, nothing could be more appropriate, if well cared for. The plants should at all times be in fine condition, indicating vigorous health, and be kept scrupulously free from dust. It is, of course, impossible to have such a stand of plants without a reserved stock to draw from, and a good greenhouse must furnish the supply. A skilful gardener could not ask for a better

method of displaying his work than that which the frequent removal of plants in this manner would afford. For brief periods, fine specimens of blooming plants could share the stand with the foliage plants, while the latter would be depended upon for the main part. The plants are supposed to stand in pots in the trays; and if the spaces are packed with moss a certain amount of moisture would be imparted to the immediately surrounding atmosphere, and the soil would not dry out by evaporation from the sides of the pots.

GLADIOLUS INNOCENCE.

The brilliant scarlet and carmine varieties of Gladiolus have always required the presence of light-colored ones to bring out by contrast their full strength and effect, and a pure white variety has been from the first the object of the highest ambition of the raisers of new varieties of this estimable plant. This end, though for a long time apparently of easy attainment has, like the Will-o'-the-wisp, constantly receded as one moved in its direction, and for a long time it has been understood that the term, white, applies to those varieties of the Gladiolus that have but light pencillings of color at the lower part of the flowers. Great attention has been given to the production of new varieties of Gladiolus by several French horticulturists, and almost innumerable hybrids of great beauty have been originated of many shades and combinations of colors, but it has appeared as if no pure white was ever to crown the efforts or gladden the eyes of the admirers of this showy and beautiful flower

Our colored plate, this month, well represents the appearance of a seedling which first bloomed on our grounds in the summer of 1877. The plant is a healthy grower, of medium size, blooming about the middle of the season, bearing a full, well-formed spike of medium sized flowers which are greenish white in the buds, and pure white when fully open. As ordinarily seen no trace of color is visible on the flowers, and it is only by looking directly down into the flower that some dark spots may be perceived at the base. Practically this flower is a pure white, and the first and only variety of the kind ever seen, and all who may ever make its acquaintance will acknowledge that the name, Innocence, is properly bestowed on it. It has bloomed on our grounds regularly for eight years, and is always true to the description here given, and without variation. The corms increase slowly, and it will be a long time before it is widely known; in the meantime, those obtaining possession of it will find they have a treasure.



CORRESPONDENCE.

CONSTRUCTING A COLD GRAPERY—PRIZE ESSAY.

Continued from the January number.

The wires should be at least eighteen inches from the glass. I have long held the opinion that in most vineries the vines were kept too close to the glass, and that most of the evils and failures are attributable to this and to the want of water. A vine cannot be healthy when its leaves are touching the glass, as in most cases we find they are; and, in many instances, instead of looking green and healthy, they are scorched and a prey to the red spider. Under these conditions all the chances are against raising a good, well finished crop of Grapes. For my part, I prefer the wires to run lengthwise through the house, at about twenty inches from the glass, as this mode gives greater liberty in tying the spur laterals out, and also in tying up the shoulders of bunches; you can also give each branch its proper room, so that the foliage is not in the least crowded, whereas, in the old mode of allowing three wires to a vine, it is impossible to give each branch the room it requires to develop. If the house is wired crosswise, at least five wires should be allowed to each vine.

Now for the question, what varieties shall we raise? It is told of an old Scotch beggar, that having asked for a glass of water one winter's day, when given to him, he inquired, "Dinna ye think it would be better wi' a drap o' someat warm in it?" I am writing on cold vineries, but I would ask, with something of the anxiety of the beggar, "Dinna ye think it would be better wi' someat warm in it?" at times. The answer to this question would influence me in my choice of sorts. If we had what the Irishman called "a cold house with the least taste of heat in it," I would put down in my list such sorts as Lady Downe's, Muscat of Alexandria, Muscat Hamburgh, Mrs. Pince's Black Muscat, &c.; but if we are to have no fire heat, I would say, don't touch these sorts, but grow Black Hamburgh, Rose, White and Musk Chasselas, Red, White and

Grizzly Frontignan and Buckland's Sweetwater. But supposing there was a flow and return round the house, keeping about two yards from the front and well above the border, and supposing shutters were provided, so that when the crop was gathered, the vines pruned, covered and laid down, and the front of the house packed with leaves or straw, and the shutters put up, how useful such a house would be for wintering over such plants as Pansies, Echeverias, Sempervivums, Herniarias, Agaves, &c., that are so useful in summer bedding; and how useful we should find the bit of heat in the cold snaps in spring, perhaps just when our vines were bursting into flower, and when, instead of less heat, we would require more, and how good it would be in a cold, sombre fall, when the rain comes day after day, and we are at our wits end to keep our Grapes from the fungus of decay, and to get the wood well ripened. These suggestions are worthy of one's consideration who contemplates putting up such a house. I should, by all means, advise a flow and return.

Procure vines early in spring, before there is the least sign of life. Make places for planting them three and one-half to four feet apart, carefully break the balls and spread out the roots, insinuating the soil about them, so that no two roots are together, carefully packing it about them, firming it with the hands, and when all is finished cut the vine down to the last three eyes, and water well in. When the buds begin to show a woolly appearance sprinkle the plants every morning, keeping a temperature of about 60°, increasing it a little as the buds burst. When they have burst choose the strongest one on each vine and rub the others off; let the temperature now be 75° by day, and as near 60° at night as possible, and put four evaporating pans, eighteen inches wide, three inches deep, and four feet long to every forty feet in length, and keep them filled with water. The pans can be made of

galvanized iron, and should be painted. This will keep the atmosphere moist without any syringe, which I never allow in my vinery, and no one can find either a thrips or a red spider in my vinery. As the sun increases in power sprinkle the path and border through a coarse rose twice a day, and commence giving air, inch by inch, at the back, and when the temperature gets near 80° open the front slides; this will cause a circulation in the house, even when there is not a breath of air stirring outside. Water the border about the roots copiously once a week, and by the middle of August, if all has gone on properly, you will find the vines have crept to the top of the house, and have good, strong, straight canes, with stout, short joints. Watering must now be stopped and air admitted freely, so as to get the wood thoroughly well ripened. As soon as the leaves are off cut off two-thirds and lay down, but do not cover until there is at least 10° of frost, then cover with straw and dry leaves. The following spring, as soon as it is deemed advisable, uncover them, take away the litter, and fork and water the border, but do not tie up to the vines until the buds have burst; by this means all the buds will burst at once and equally strong, whereas, if tied up as soon as uncovered the eyes at the top will break first and rob the bottom ones, which will be weaker. Train the end eye up as a leader, and as the shoots begin to show fruit pinch off all but three bunches to each vine. Remember the watering and the evaporating pans, and when the vines begin to flower keep a slightly warmer, drier atmosphere for a few days, gently shaking the vines every day at mid-day; this will distribute the pollen and assist materially in fertilizing the bunches and obtaining a good set of fruit. In the case of Lady Downe's, Muscat of Alexandria, Alicante, and Muscat Hamburgh I would use a muslin net; shake the pollen into it and then flirt it up with the finger and thumb into the bunch again. You will find this a most successful mode of fertilizing these badly setting varieties; I have never known it to fail. When the berries begin to swell and are about the size of Peas, thin at once, tying up the shoulders and taking off at least half the berries, especially all inside ones and all imper-

fectly fertilized ones, or they will cause you future trouble; give the border a good soaking of liquid manure, pinch off all laterals, and, by the way, I forgot to say, the shoots should be stopped two eyes above the bunch. Now, bear this in mind: one of the most successful exhibitors of Grapes in England told me that "a man should be able to carry all the laterals and shoots he took off a growing vine in his waistcoat pocket." I consider this of great moment. I once saw a splendid house of Grapes spoiled by the check given in cutting off a lot of shoots and laterals all at once, instead of giving a quarter of an hour occasionally and pinching off the laterals when they were small; they had been allowed to run, and then the gardener went at it with his knife, and almost every bunch in that house shanked, or shrivelled, in consequence.

Give alternately liquid manure and clear water until the Grapes begin to color, then keep the border slightly drier, and as the bloom begins to show give more air. When the Grapes are ripe keep the house dry, and give all the air possible, but do not allow the vines to suffer for want of water. By this means Grapes may be kept hanging for a long time; for instance, I have about forty bunches hanging yet, this 14th day of January, and in good condition, although I would rather they were out of that and my vines pruned and laid down.

In pruning, this second year, the vines should be cut one-third of the way down and one eye be left to each spur, and then laid down, as before recommended, and the next spring top-dress the border with about three inches of the compost recommended for borders, forking it in and incorporating it with the surface; water the border and sprinkle the vines as before, and this year allow six or eight bunches to each vine, and so on. Increase the border by top-dressing year by year, and increase the number of bunches and the length of the cane until it reaches to the top; by this mode of treatment the vines will retain their vigor and fruitfulness many years. As soon as the bunches and berries begin to deteriorate in size and flavor renew the canes one by one, by allowing a shoot to start near the base of the cane, and training it that season along the bottom

of the house across the other vines. The cane that has been fruiting for so long may now be cut out, the wound pared smooth and painted, and this new cane taken up in its stead; by doing one by one the whole house may be renewed without materially affecting the yield. With proper care the fruit should not deteriorate for at least fifteen years.

In case red spider attacks the leaves at any time, as soon as observed, heat a shovel and sprinkle on it some sulphur, under the vine attacked, and this will soon destroy the insects; but by using the evaporating pans red spider need not be feared. Keep out all plants affected with

thrips, and you will be free from it also. But beware of mealy bug. If it gets into the vinery there will be great difficulty in dislodging it, although it may be done in the following way: When the vines are pruned, mix together two ounces of sweet nitre, one quart strong tobacco water, one-half pound whale oil soap, one-half pound sulphur, and clay to thicken to the consistency of cream, and paint the canes thoroughly in spring, and keep a good look out for any stray insects that may be left. By these means I cleared a house in two years that had thousands when I took it in hand.—WM. HY. WADDINGTON.

NOTES FROM WESTERN IOWA.

As we have only been three years in Western Iowa, and our experience in fruit growing previous to our coming was somewhat limited, a contribution "embodying personal experience" will probably be of little value; a novice usually has the merit of enthusiasm, however. When we came to this country and purchased a small farm near a growing town, with the intention of planting out more fruit than we should need for family use, we were told by some of the old residents, "This is no fruit country," so we decided to "make haste slowly" in our investments in that line; nevertheless, we went to work the next spring preparing the ground and planting fruit of all kinds we thought adapted to this latitude, and notwithstanding the unfavorable seasons we have had, last year we were able to show seven different kinds of fruit grown on our farm, not including different varieties of the same kind; of Strawberries and Raspberries we had several varieties. We found a ready home market for the little we had to sell, and are so well satisfied with our success that we intend planting more largely of the kinds most profitable for market.

The first fall we came we were offered some nursery stock, Apple trees and Grape vines, that had been brought from a distance, and as the price was low, we invested, and as our ground was not ready we tried the "heeling in" process. They were not spread out much, and as the winter was moderate, were found to be very mouldy in the spring, and we lost about sixty per cent., so that bargain

proved a bad one. Since that we have bought of resident nurserymen, planting in the spring, and only losing two or three per cent.

Horticulture has been much neglected in this section, as a general thing, though a few of the old settlers have fine orchards and a good selection of small fruits. One of these, a New Hampshire man of intelligence and culture, was lately visited by a brother farmer, who has been a resident for the same length of time, sixteen years; as he enjoyed the fine Jonathans, hospitably offered, he remarked, "I wish I had planted an orchard when I first went on my farm. I have a good place for one; must try to get it grubbed out and plant some trees in the spring." That man's boys will probably be thinking of leaving the farm before his orchard comes into bearing.

The price of Apples was so high when we first came that, although accustomed to them from childhood, we made up our minds we could not afford many; we had lost a part of our canned fruit from careless packing, and we waited with impatience for the opening of spring. You may be sure we made an effort for a good vegetable garden that spring, and what a famous one we had, and how we enjoyed it. Was ever Lettuce so crisp, and the "odious Onion," how we forgot all about the odor as we placed it on our table. How we astonished the natives with our early Peas and Beans and Tomatoes. Well, if you never could learn to like them, just come out west when fruit is scarce, and see if you do not appreciate

them. We had never thought it worth our while to raise Salsify, but now it has become such a favorite dish that JOHN says he shall buy an ounce of seed for the next planting. The past season was favorable for all kinds of vegetables here. We had a fair yield of all we tried except Cabbage. A large Melon patch is desirable on a new farm in the west, we have found. Last autumn we had the pleasure of visiting the fruit farm of H. H. JOBES, of Casey, Guthrie Co., adjoining this on the north. Mr. JOBES' fifteen years' experience in fruit growing have given him

an enviable degree of success. We found his Apple crop fair, and the yield of all other kinds of fruit he cultivates, except Plums, was large. The Snyder is the only variety of Blackberry he has found profitable; we have tried no other; should like a larger berry, but were taught in the November number of the MAGAZINE not to expect the best quality of fruit from a plant of great hardiness and productiveness. I have other thoughts at the point of my pen, but fearing you will wait impatiently for the last note I will not write them now.—L. V. A., *Adair Co., Iowa.*

MIRROR LAKE.

There are certain excursions made by all tourists who spend any reasonable length of time at Yosemite, and one of these is the drive to Mirror Lake. The average tourist appears to take it for granted that the lake is a broad sheet of water reaching up the valley for miles, and is accordingly disappointed when he finds it is only an expansion of Tenaya Creek, shortly before its confluence with the Merced River.

"No larger than a respectable frog pond!" growled a sturdy Yankee, one day.

"Well, I'm sure," cried his sprightly daughter, "Here, we've taken this long journey to see Mirror Lake, when there's a good deal bigger lake not half a mile from South Jonesville. Let's go back to the hotel, pa, and get ready for our ride to Gla-zhur Point."

The peculiar charm of Mirror Lake lies in its surroundings. Its counterpart in an ordinary locality would be only a tranquil, willow-fringed sheet of water. But while the clear depths of Mirror Lake continue to reveal such marvellous pictures, its shores will be enchanted ground to nature-lovers. The reflections are best seen before sunrise, and each morning carriages leave the hotels in ample season to reach the lake while it is still in shadow. The drive is delightful, going up one side of the river and returning by another road on the opposite shore; but even in summer, the crisp mountain air makes plenty of wraps and carriage robes a necessity at that early hour. The road is smooth until you near the lake, there it is very rocky, and about June first, when the river is high, it is frequently two or three feet under water.

Mirror Lake gleams at the foot of Tissaack, the Half Dome, that extraordinary rock mass, towering unique in the Sierra, and, as far as known, in the world. It has the appearance of a stupendous dome that has been split in two, and on first sight the question naturally arises, "What has become of the other half?" Speculation runs on this theme, though it is rather unsatisfactory, as no one can prove his theory to be true and his neighbor's false. The Indians of the valley have a fanciful legend concerning Tissaack, the goddess of the Half Dome, and attribute its singular form to the destructive action of a mighty earthquake. The Half Dome is about five thousand feet above the valley, or nine thousand feet above the sea. Its cleft side, curiously marked and stained, is turned toward Mirror Lake. For the first fifteen hundred feet from the crest it is said to be absolutely vertical, and then it falls off with a very steep pitch to the valley floor. To the left of Tissaack is a noble, forest-crowned height, called Mt. Watkins, after the artist who took the first views of the valley; and still further to the left is Round Tower, which the Indians call the Watching Eye.

It was on a cool morning in April that I first saw Mirror Lake. We left the carriages a short distance from the shore and climbed upon a large rock that sloped to the water's edge, a favorite point of view, as I afterward learned. The dense forest encroached on the uttermost limit of the banks, and the air was chill and damp. We were in the shadow of the Half Dome, directly under that rock-marvel rising straight up into



MT. WATKINS AND MIRROR LAKE.

the air nearly a mile above us, while in the water lay its mirrored counterpart, Tissaack's proud crest barely escaping the rock on which we stood. Sometimes there is a discernible current near the middle of the lake, but this morning the water was clear and smooth as glass, and mountains and forests were pictured with absolute fidelity.

On the north side the Dome loses its symmetry, and the irregular outline bears a certain rude resemblance to the profile of a reclining human head, Milesian in type, and known as the Sleeping Beauty. As I watched the great original or its fellow in the water, a faint glow appeared above the Dome that intensified until the sunlight struck the forests on Mt. Watkins and the Elephant's Head on Round Tower. The Poplars and Willows at the upper end of the lake were all ablaze, while we stood in sombre shadow. Deeper flushed the sky at the coming of the sun into the presence of the Sleeping Beauty, a faint tremor came over the water, and a brilliant star slowly appeared just above the maiden's *retrousse* nose, trembling an instant on the rocky outline ere its full glory was revealed. This is the supreme moment, and may be repeated many times by changing position and moving down the lake. A merry gentleman of high journalistic fame once announced at breakfast his right to a morning nap for two weeks, as he had just seen the sun rise fourteen times.

It was my good fortune to witness the sun rise from Glacier Point, three thousand two hundred feet above the valley. Here I found the same repetition possible, for by moving down the veranda again and again, I saw that starry sun tremble on the crest of a snow-capped peak of the Sierra.

A small boat is kept at the lake for the benefit of tourists; but its use is prohibited during the early hours of the day when any disturbance of the water destroys the reflection.

There is a wonderful charm in the road to Mirror Lake, and I longed to explore it for myself, going fast or slowly, or making little *detours* from the beaten track as fancy dictated, without delaying a party of tourists. So, one morning, I started on the six-mile walk, and an extract from the notes hastily written on

any convenient log or rock by the way-side, may serve to give a clearer conception of Yosemite's minor beauties.

"May 22. Chose the road up the river, by the school house; warm, bright morning; foliage of Poplars and Alders well advanced, Oaks just leafing. Road very good most of the way, though at intervals somewhat dusty. Fine view of Conundrum Fall, at the right of Glacier Point; also, of the Illilouette, on the South Fork of the Merced. What a pity that no trail has yet been made to this great fall. Thought I had lost the road till I came to the wooden bridge where the trail strikes off for the Vernal and Nevada Falls. Here is a thicket of Dogwood in flower, many of the immense bracts being three or four inches across. There is a charming picture from the bridge. Looking up the current the stream is soon hidden by the Cedars and deciduous trees that line its banks. It hurries along in foam-tossed rapids, losing almost wholly its green tint. Near the left bank is a rock curiously draped with moss in such wise that it looks like the head of a huge frog. Below the bridge the river is more sedate, but occasionally tosses up a white-cap. At the seeming termination of the stream, where it makes an abrupt turn through the forest, rises the North Dome, a perfect view, as from this point it appears symmetrical. Tissaack, the Half Dome, is just visible through the Cedars.

"Crossing the bridge, a wooden structure with clumsy side beams that spoil the out-look when one is in a carriage, the road winds down the river. The long, fragrant racemes of the Wild Cherry wave on all sides, and a multitude of unknown flowers nod their pretty heads. At intervals through the trees one may catch again that perfect view of the Dome as seen from the bridge, with a hint of the Royal Arches and Fall beyond. Leaving the river, an opening through the forest discloses a glimpse of the Upper Yosemite, a fleecy cloud emerging from a cleft in the rock. Washington column almost hides the North Dome, but at the Tenaya Creek bridge it again appears. Tissaack looms above the Pines to the right, a magnificent view, but giving no hint of a dome. The water of Tenaya Creek lacks the clearness so often noted in the main river. Going on,

the road leads through acres of rocks, and finally runs past a small pool; a short distance beyond is the lake. Reached it at 11 A. M. There were no reflections, as a party of tourists were rowing and the water was ruffled. Found some beautiful little Ferns, *Cheilanthes gracillima*, among the rocks on the shore. In returning, followed the right hand road, skirting the base of Washington Column and the Royal Arches. When seen from a distance Washington Column seems low in comparison with the heights that rise above it; but walking slowly along beneath it one forms a faint idea of its immensity. While passing the Royal Arches, through that portion of the valley where campers most do congregate, the Yosemite Fall again comes in view. With that swaying column of slowly gliding water before one's eyes, could the walk hotel-ward, through the flower-starred meadows, be other than a delight?"

About the first of June, when the river

is high and overflows its banks, Mirror Lake has many rivals in the quiet pools formed in the meadows. The reflections are particularly fine in certain portions of the Cosmopolitan Meadow, which stretches for nearly a mile between the two principal hotels, and in the pool below Fiske's Studio. Beside the inverted sweep of the northern wall from the Three Brothers to Washington Column, here is a marvel that Mirror Lake does not possess. From the far depths a new Yosemite streams up, gathering itself together into a compact column, or diverging in a filmy, fan-like, flow—faithfully, duplicating the great fall as it plunges from the heights above. Fortunately, indeed, is he who numbers this picture among his Yosemite remembrances, for it is transient as high water, rarely continues above two weeks, but the beauties of Mirror Lake remain unchanged throughout the season.—ALICE P. ADAMS, *San Gabriel, California.*

FORECASTING WEATHER

Since the Signal service came in, I fear most of us depend upon it entirely, and lose the habit of taking observations of the weather and trying conclusions on it, which was a valuable exercise in sagacity, if nothing more. The training of the senses given by the study of nature, in any form, and the sharpening of the judgment by experience are some of the compensations of mature years in which we cease to regret youth, opening for us worlds within this world. To the botanist who spies a dozen curious plants where I see but a dull wayside growth, to the geologist who traces a whole romance of crystalization and volcanic action in the opaque beryls and agate pebbles turned up by the hoe in a Massachusetts garden, or to the weather student, to whom the heavens with their dim renderings for common eyes are an illuminated scroll traced with soft meanings of sweet days, subtle forecasts of long raging storm, or frown of sudden tempest in the "anvil headed clouds," he sees the fibres of the cloud film in upper air spread apart like feathers by the electric current, and the storm-scurd crossing under, and knows whether it preludes a local disturbance over in two hours, or the continental storm wave, bringing its

slow sweep to bear on the length of our coasts. The weather is a grand study, matchless in its characters of mounting cloud, sunset flush, golden moonrise, and all the colored pageantry of the seasons. We do not study it so much as feel it, in the creeping of nerves, in the change of the lights, the subtle degrees of heat or cold that mark the climax of its periods, and a good meteorologist is born, not made.

To descend from any flights of enthusiasm about the matter it is very convenient to have some idea of the weather even twelve hours before hand, to know whether to lay plans for going in town, or for planting Peas and setting the Strawberry beds, which last, every one knows, is better done just before rain. A Peach blossom sunset in haze is good sign of dry weather, "Aqueous vapors being opaque to the deep red rays," as Sir JOHN HERSCHEL says. An old rhyme that sings itself in one's head, is,

"An old moon's mist,
Is worth gold in a kist;
But a new moon's mist
Shall never lack thirst."

Meaning that a fog in the old of the moon is apt to herald some sort of rain, while in the new moon it clears off with fine weather, which is one of the things

you may put down in your note book and find out just what it is good for. Halos, coronas and lunar rainbows are seen only when watery vapor is gathering high in the air, to fall presently in copious rain or snow. Sailors believe it a sure sign of a heavy storm when, in their phrase, a star is seen ahead of the moon, towing her, and another chasing her close astern. I won't stop to explain why this is a good sign, but it is sure as any in the Signal service code, for scientific reasons. In the ballad of Sir PATRICK SPENCE, the seaman sings of another old sign :

" Late, late yestere'en, I saw the new moon,
Wi' the old one in her arm ;
And I fear, I fear, my dear master,
That we will come to harm."

But it is the earth shine reflected three times through the air, from the sun to the earth, from earth to the moon, and back to our eyes again, which presents this glimpse of the shaded part of the moon, while its outline glows with the direct rays of the unseen sun. This pale, thrice reflected light is visible for something the same reason that distant views grow distinct before rains, because the air charged with vapor reflects, as from a million microscopic lenses combined, magnifying sight, as we see a thousand times plainer through the thick glass of a telescope than through the unobstructed air.

Neuralgic people are good weather prophets, for they have cruel warning of electric or magnetic changes, often a day before they are upon us. Animals feel the coming change in the same way, by the disturbance of their nerves, for thoroughly healthy nerves are acutely sensitive. The law laid down by Admiral FITZROY, the founder of the British weather service, is that the slower a storm is coming on, the longer it lasts, and the more sudden the change of weather the sooner it will be over. When the barometer falls and clouds gather a

day or two before rain, expect a three or four days' storm. People at the sea-coast have the best of all indications of a gale when the gulls and divers fly in shore. Probably we should have some idea of the change to come if we were in the habit of taking flights fifty and a hundred feet up in the air, and birds also feel the strong electric tension, which warns them of coming disturbance, and leads them to seek safety inland. Literally, they feel it in their bones, and their wild flights, their screamings before a storm, like the running of pigs to and fro, signs noted by VIRGIL, are forms of hysteric excitement, such as nervous people share before and during storms.

For those curious in such matters, I copy an old weather table, published for years in *The Family Christian Almanac*, of the American Tract Society. The great astronomer, WILLIAM HERSCHEL, was said to be its author, which, however, his son, Sir JOHN HERSCHEL, indignantly denied, and scoffed at the idea of its being of the slightest use. But then he scoffs at all weather signs, except anvil-headed clouds, which he condescendingly admits are speedily followed by a gale, which shows, I fear, that Sir JOHN was a better student of books than of the heavens. Any how we can claim his sanction for the table, for he lays down the rule that "one may believe the tests of long continued and registered experience." This little table has been used in a household where all were trained observers, father, mother, son and daughter, where for sixty years the record of observations, morning, noon and night, has not failed for one week at any time. I asked, how often, in twenty years of its use, the table had been incorrect, and the answer was, "not one time in twenty," while another added, "not one time in fifty." I have tried the table, and like its indications ; you may take it on its own merits.

If the new moon, first quarter, the full moon or the last quarter, happens

Between 12 and 2 A. M.,
2 and 4 A. M.,
4 and 6 A. M.,
6 and 8 A. M.,
8 and 10 A. M.,
10 and 12 A. M.,
12 and 2 P. M.,
2 and 4 P. M.,
4 and 6 P. M.,
6 and 8 P. M.,
8 and 10 P. M.,
10 and midnight,

In Summer, it will be

Fair.
Cold, with frequent showers.
Rain.
Wind and rain.
Changeable.
Frequent showers.
Very rainy.
Changeable.
Fair
{ Fair if wind is N. W.; rainy if
S. or S. W.
Fair.

In Winter, it will be

Hard frost, unless wind be S. W.
Snow and stormy.
Rain.
Stormy.
Cold rain if wind be W.; snow if E.
Cold and high wind.
Snow or rain.
Fair and mild.
Fair.
{ Fair and frosty if wind be N. or
N. E.; rain or snow if S. or S. W.
Fair and frosty.

I copy this for the purpose of interesting as many persons as possible to use it and observe how its signs agree with the weather. Anything which leads to observation is valuable, if for no other purpose.—SUSAN POWER.

SOME NATIVE ORCHIDS.

Perhaps these days, when the Orchid mania is raging, and the uttermost parts of the earth are "investigated" to discover new species of this wonderful flower wherewith to adorn the Orchid houses of wealthy amateurs, a few remarks about our native varieties may interest those who, not having an abundance of this world's goods, are fain to content themselves with such specimens of the genus as inhabit the fields or groves of our native land.

The various kinds of *Cypripedium* are among the most showy of Orchidaceous plants in this section, and the beauty of their blossoms rivals that of some of their more favored sisters occupying conspicuous places in the greenhouse. The *Cypripedium acaule*, with its large, purple flower, nodding on the slender, graceful scape, is a veritable floral gem, and the more common *Cypripedium pubescens*, or Indian Moccasin Flower, with its golden blossom, so like a gigantic *Calceolaria*, is a plant which no one who loves the wild beauties of the forest would pass unheeded. The loveliness of both the preceding species pales, however, beside that of the *Cypripedium spectabile*, or Tall Lady's Slipper, a denizen of swamps in this part of the world.

There is something marvellous in the appearance of these great, white flowers, which have markings on the inner surface, delicate as if the tiny flecks of color were laid on with a brush held by a fairy's hand. The large sepals of these blossoms are white, or nearly so, which adds greatly to their beauty. Indeed, when looking at a cluster from a little distance one would not find it very difficult to imagine that the angel of the flowers had appeared to mortal vision.

The *Orchid spectabilis*, or Showy Orchid is occasionally found in our woods, and is described by GRAY as "producing two oblong ovate, shining leaves, (3'-5' long,) and a few-flowered, five angled scape, (4'-7' high.)" This little Orchid is one of my favorite wild flowers, and the bare thought even of its strange and sweet perfume takes me back to the days

of my early childhood, when it was pointed out to me and the name impressed on my memory by my father, who was an enthusiastic botanist, and whose companion I was in many a long and weary tramp in pursuit of floral treasures, when the distance was so great that the small member of that botanical fraternity had to be ignominiously picked up and carried, in order to facilitate the journey. *Orchis spectabilis* can be flowered in the house, if removed from its native habitat in early spring and potted in a proper manner. I do not know that I used any thing but clear leaf-mold for the specimen I procured. I remember finding a small species of the *Orchis*, the name of which I do not now recollect, which, I think, is rare in this locality, as my father had never seen it before, which had a little spike of flowers of such a shadowy appearance that I was reminded of the skeleton flowers or leaves which were made up into the "phantom bouquets," so popular years ago. I thought that the "Phantom Orchis" would be an exceedingly appropriate name for the plant, but perhaps the one who named it was of a more practical turn of mind, for I am quite sure it bore no such startling appellation.

The *Goodyera pubescens* is another interesting, though not very showy, member of the Orchidaceæ. Its chief beauty lies in the leaves, which are small and close to the ground, being radical and having short petioles. Any lack in size, however, is atoned for by their exquisite color and markings. They look as if made of dark green, lustrous silk covered with a net-work of white lace. This little woodland beauty can be easily transferred to the house, by giving it leaf-mold to grow in and a very little care and attention. Although there is said to be "not less than fifteen hundred species" of the *Orchis* tribe, it is "sparingly represented in the United States;" still there are enough to afford many a pleasant and profitable hour to those who care to look for them in order to discover their beauties and peculiarities, and to whom an Orchid is

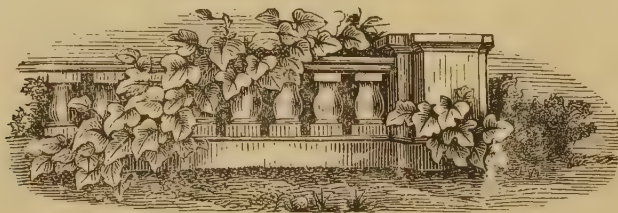
not simply a showy flower brought from a far country at a great price, but as one of the wonderful works of that Beneficent Being, whose every creation we may admire, even though we do not comprehend. For when we have analyzed and examined

and pondered and speculated, how much nearer are we to the mystery of existence that lies wrapped up in every tiny bud and waves in every blade of grass that is tossed by the passing breeze?—Mrs. H. R. L., *Hoosac, N. Y.*

ELIMINATED DRUDGERY.

There is no vocation that can give a higher satisfaction to him who follows it, than farming, if intelligence guides the pursuit of it. I do not hesitate to make this statement in the face of all the grumbling I hear daily from those who might be the happiest people on the face of the earth. And I trust the readers of this short article will not suggest that these views are made from so high a pinnacle that the bare and rough spots in farm life are obliterated. I was born and brought up on a farm, worked daily in the field or stable, have seen the "ins and outs," the "ups and downs" of life in the country. The truth is, or should be, that a man takes the most solid comfort in that work which interests his whole family, and about which all the members can unite in study and enjoyment. The farmer who pursues a system of mixed husbandry, has in the diversity of employment, breadth of study and thought, everything that will stimulate a healthy activity of mind and body. In the pursuit of financial success, he has problems to solve and questions to decide which may form subjects for most interesting family conversation. There may be drudgery in farm life, but there need be no more of it there than in the details of highest art. The best way in the world to embellish this drudgery, is to find questions connected with it that shall quicken thought and stimulate inquiry in every member of the household. Let me cite a homely illus-

tration in point. It might seem that the hauling out of manure in preparation for a crop would be about the lowest form of drudgery upon the farm. At the very suggestion of it I can imagine a rise in the outer angle of very comely nasal organs. Now, this has been the leading occupation at our place for some days, and it will probably order a smile on the faces of many of my readers when I remark that the occupation has become exceedingly interesting to every member of the household. The questions of feeding for manure, expense of getting it upon the land, loss by spreading it directly upon the surface, benefits of composting, use of plaster as an absorbent, etc., have been studied and discussed by the men; while the feminine members of the household have given attention to fertilizers for the garden and conservatory, the utilization of the waste from the house, and especially have they studied the question of the best manure for Rose borders. We were all surprised to find how little we knew, and how much there was to learn, and how interesting became the study of the scientific questions brought out. A new book had to be added to the library; old files of newspapers and magazines were ransacked, and many an article was read with care that had previously been passed over with a simple glance at its caption. It is this course which takes all the drudgery out of farm life.—C. W. GARFIELD.



FOREIGN NOTES.

VITALITY OF BURIED SEEDS.

A writer in *The Garden* mentions an instance connected with some beds that had been planted in Rhododendrons about fifty years. Last spring it was cleared, and soon after young plants of Foxglove sprang up, which have covered it the past summer. The new crop is accounted for by the fact that in making Rhododendron beds, since the garden soil does not suit them, it is the practice to bring in peat soil from the adjacent hills, where the Foxglove flourishes, to replace it. "The present crop of young plants, therefore, must have sprung from seed brought and buried in the peat when the beds were originally made. Another instance, nearly as remarkable, came under our notice a year or two ago, when, consequent on the deep cultivation of a long neglected hardy flower border the long buried seeds of the Giant Mullein, locally called Aaron's Rød, germinated and grew in great abundance. The seeds of Gorse, too, will, if deep under ground, retain their vital properties for an indefinite length of time. I am acquainted with a piece of land in Northamptonshire which was converted from Furze fox-cover to pasture, a state in which it remained for thirty years, or more; it was then deeply cultivated, and the following season a crop of Gorse sprang up over the whole field."

Another case to the point is one lately given by a local journal: "A Michigan gentleman, a settler in that State when the country was new, made a short time ago an interesting statement of his experience. He went to Michigan in 1850, and soon after that time was engaged as a land-hunter, and spent many months in succession in the woods alone in that pursuit. He states that one time near the head of the Muskegon river, he came to an opening of about thirty acres in an extensive heavily timbered Pine forest. The Pines in the open area had been leveled to the ground by a hurricane or a cyclone. Subsequently a fire must have been set by the Indians, or possibly by lightning, and every thing had been

burned clear except the stumps of the Pines. There were no settlers in the region, but the ground could not have been better cleared for a crop by the most careful frontier farmer. 'I stood,' says the narrator, 'and looked over the expanse with wonder and amazement. The whole of that opening was as green as a Clover field; on every foot of ground was an Oak tree from six to twelve inches in height. They had grown so fast that the stems of many of them were still green, and had not taken on the grey color of the Oak bark. As I stood and looked upon them, I wondered where all the acorns came from to produce so many. I did not know of an Oak tree nearer than four miles distant.' "

REPRODUCTION OF FERNS.

Professor W. T. Dyer calls attention in *Nature* to a recent important discovery with regard to the reproduction of Ferns, from which it appears that Mr. E. T. Druery has observed a previously unnoticed mode of reproduction in the case of *Athyrium Filix-fœmina* var. *clarissima*. He states that "In this Fern the sporangia do not follow their ordinary course of development, but, assuming a more vegetative character, develop more or less well defined prothallia, which, according to Mr. Druery's observations, ultimately bear archegonia and antheridia. From these adventitious prothallia the production of seedling Ferns of a new generation has been observed to take place in a perfectly normal way." Mr. Bower has followed up this by observations on *Polystichum angulare* var. *pulcherrima*, in which the apex of the pinnules grow out into an irregular prothallium, upon which the antheridia and archegonia have also been discovered. To this phenomenon the term of apospory is given, and the following dates are given by Professor Dyer, as showing the advance in a knowledge of the reproduction of Ferns: "1597, Gerarde observed seedling plants near parents; 1648, Cæsius, sporangia; 1669, Coles, spores; 1686, Ray, hygroscopic movements of sporangia; 1715,

Morison raised seedlings from spores; 1788, Ehrhart, prothallium; 1789, Lindsay, germination of spores; 1827, Kaulfuss, development of prothallium; 1844, Nageli, antheridia; 1846, Suminski, archegonia; 1874, Farlow, apogamy; and in 1884, Drury observed apospory."

THE SHIELD SAXIFRAGE.

It may seem strange to some of our readers that we bring them news from Europe of plants natives of this country. But it must be remembered that plants,

The annexed illustration of this Saxifrage, *Saxifraga peltata*, gives an idea of its noble foliage when growing luxuriantly, as it often does when well established in gardens in this country. It is perfectly hardy and thrives satisfactorily in any damp spot, such as the side of a ditch or stream, and it seems to have a preference for a peaty soil. Its great circular leaves frequently measure considerably more than a foot across, and are borne on stalks a yard or so in height, thus rendering the plant alto-



FOLIAGE OF THE GREAT CALIFORNIAN, OR SHIELD, SAXIFRAGE.

like all other articles of commerce, are circulated through the well formed channels of trade. London is, and has been for a long time, the great plant mart of the world. The horticulture of Great Britain has demanded and developed the highest talent in the collection of plants from all parts of the globe. France and Germany, to a less extent, have shared in this work. Many of the plants of this country that are now commonly known, have been brought to the attention of cultivators in this country by British and European horticulturists, and we are yet receiving little known plants of our own country in the same way. The following account, and the illustration, are taken from *The Gardener*, a leading London horticultural journal:

gether highly ornamental. It blossoms early in spring before the leaves are developed. The flower stems are stout and erect, terminated by broad clusters (cymes,) of rosy red blooms; after they have died the leaves spring up. This Saxifrage grows naturally in the beds of streamlets throughout the Sierra Nevada, where it forms a peculiar feature in the vegetation of those regions. In our gardens it grows equally well as in its native habitats.

FORESTRY IN SCOTLAND.—The establishment is projected of a school of forestry at Edinburgh. The Marquis of Lothian is interested to raise funds, and Sir JOHN LUBBOCK to obtain government assistance.

CYCLAMEN AT SUTTON'S.

A grander lot of plants it would be difficult to find. Several houses are filled with them, the display being maintained from the beginning of November until April. Many of the strongest plants are in six-inch pots, and would apparently pay for another shift, as the foliage extends far beyond the rim of the pots, yet the plants are not twelve months old. They are calculated, and with good reason, to each produce from two hundred to three hundred fine blooms. The flowers of each strain are very fine, are borne on long and stout stems well above the foliage, and the giant strains are evidently as floriferous as those producing smaller flowers. The colors are bright and well diversified, and an equally good variety is observable in the beautiful foliage, which has been very much improved of late. Plenty of the leaves measure four inches across, and are as prettily veined and marbled as Begonias of the Rex type. One novelty is named Sutton's Butterfly, and should become a great favorite among Cyclamen growers. It evidently possesses a good constitution, has pretty foliage, and produces its singularly pretty white flowers most freely. Each flower when about three parts expanded much resembles a butterfly on the point of alighting on the plant; hence the change of name, this variety being originally named Miss Lilian Cox, and as such was awarded a first-class certificate by the Royal Horticultural Society.

The Cyclamen seed is principally sown early in November in pans of fine sandy soil. It is not, as usually happens, placed in heat at once, but the pans are stood in a cool house till the end of December, by which time the seeds have swelled considerably, and when placed in a brisk heat soon germinate strongly. The seedlings are pricked off into thumb-pots, and are gradually shifted into the pots into which they are to flower, these being either four-inch, five-inch or six inch pots

according to their vigor. The compost employed consists of three parts good turfy loam to one part of well-rotted manure and sand. From the first the plants are kept carefully shaded from bright sunshine, never suffer from want of water, and are kept steadily growing, but not either in a strong or dry heat—a moist bottom and an intermediate temperature best suiting them. They are never mixed with other plants, and insects of no kind are allowed to effect a lodgment. They well repay for all the trouble taken with them, and well known and popular as the Persian Cyclamen is become, I yet doubt if the majority of gardeners and amateurs scarcely realize what a wonderful display can be made with the seedlings resulting from one packet of seed.—W. I., in *Journal of Horticulture*.

LEAVES AS FODDER IN NORWAY.

The Alder and the Ash are much valued by the Norwegian peasants, as furnishing fodder for their cattle during the long severe winter. In early October, just before the leaves change color, every farmer fills two or three of his barns with small branches cut from these trees; with this food the cows have to be content, for all the hay is required for the horses. The work of collecting and storing these leafy branches is entrusted to old women and younger girls, the latter climbing up into the trees when necessary, and displaying as much agility and fearlessness as a school boy after a bird's nest. The fair sex in Norway have to do their share of hard work, and do it uncomplainingly; an old beldame may frequently be seen trudging homewards over the slippery ice-worn rocks of a difficult mountain path, bent almost double with the weight of her years, and such a bundle of boughs a strong English laborer would consider amply large enough for him to carry across a stockyard.—From "An October Walk in Norway," in *Forestry* for December.



PLEASANT GOSSIP.

SQUASH RAISING—FIG TREE.

For the past ten years I have tried to raise either the Hubbard Butman or Turban Squash. I have followed the directions given in various works on the subject, but until this year have failed. I followed a suggestion which I found in your MAGAZINE with reference to the time of sowing, viz. the last week in June and while I was not much troubled with the striped bug I found my crop did not ripen in time to save it from frost. I planted in hills about eight feet apart, manured in the hill heavily, and as the vines grew, I used the saltpetre, according to directions in the pages of the last July number. The result was the vines matted thickly together, and looked as though they would pay me for my perseverance and labor. But, on gathering the crop, I found that where I expected most I gathered least, which proves to me that it is possible to manure Squashes too much; but, of course, that can be remedied. I found the saltpetre a perfect cure for the borer; but I think the seed should be planted the first week in June.

Would a Fig tree thrive in this locality, and will salt water affect it?—W. P., *Niantic, Conn.*

Our readers occupy so wide a territory that it is impossible to be governed literally by each other's experience in gardening operations that relate to seasonable times, such as planting and gathering crops. Personal and local experience must govern in these cases. It is best to plant Squash seed, at the north, about the time of Corn planting, or, if protection can be given by hand frames, a week or two earlier. It is not well to let Squash or Melon vines run together in such numbers that they become a matted mass. The stems as they grow should be guided and arranged so as to give each one plenty of room for itself and its branches, removing them where they grow too closely. Pinching the ends of the main shoots will cause them to throw out more branches and induce greater fruitfulness. Vines having all their leaves exposed to the light and air, and well furnished with branches cannot easily have too great a supply of manure for their roots.

The Fig in Connecticut will thrive only with winter protection, of which the different methods are laying down and covering with brush and soil, removing the plants to a cellar in the fall, or raising them under glass, in houses constructed

for the purpose. The proximity to salt water is not injurious.

PERENNIAL PHLOX.

I find some varieties of Perennial Phlox subject to mildew when set so closely as to form an unbroken sheet of bloom. soil sandy loam, situation open and airy. Is this plant unfitted for massing? Is there an earlier flowering white Phlox than Miss Robinson? If so, please name and name one or two varieties of good contrasting colors flowering with it. Name a few white varieties with colored eyes flowering with Rose of Castile and Prince Christian. Kindly answer through the MAGAZINE.—A. M., *Lucknow, Ont.*

The Perennial Phlox is not well adapted to massing, as in that condition it invariably falls a prey to mildew, as noticed in our last number. We do not know of an earlier white variety than Miss Robinson. Duchess of Sutherland blooms about the same time, but is not so good a white; Von Moltke, a purplish lilac, comes into flower with them. These are very early bloomers, and it is difficult to name more of the same season. A record kept in the year 1882 shows that Miss Robinson bloomed the 5th of July. Rose of Castile came in on the 10th of July, being five days later, and we know of no other variety at that time. Prince Christian, the same season, bloomed on the 29th of July, and with it came Comtesse de Chambourd, white, with pale pink eye; Paul de Segur, L'Ange de Proscrit and Madame Maria Labbe, each white with pink eye, but differing greatly in habit and size. The latest blooming good white variety is Virgo Maria, which, in the year mentioned, commenced to bloom on the 18th of August.

A PLANT GROWER'S QUESTIONS.

Do dwarf Callas bloom as freely as others?

I have a blue Passion Flower vine a year old in my window garden, when can I expect it to bloom?

I have a Gloxinia bulb. what is the proper treatment of it?

What Ferns are best adapted to an ordinary room?

Do you think that crushed shell will have the same effect as slacked shells in keeping off white and green lice from plants.—Mrs. J. J. K.

Richardia maculata, R. albo-maculata and R. hastata bloom annually with proper treatment.

The Passion vine will probably bloom the coming season.

Pot the Gloxinia bulb early in spring in soil of loam and leaf-mold of equal parts, with an addition of a little sand. Leave the crown of the bulb even with the surface of the soil. Water moderately at first, and give a temperature of about 60°, but increasing the amount of heat and water with advancing growth. A moist atmosphere, but in connection with fair ventilation, is necessary to the health of the plant. After blooming water should be given sparingly until the bulb ripens, and then entirely withheld during the season of rest.

The Ferns best adapted to ordinary room culture are those having fronds of a firm or coriaceous texture. Of all the genera of this plant probably the *Pteris* supplies more valuable species and varieties for this purpose than any other. Some of the *Polypodiums*, *Blechnums* and *Aspidiums* are also specially valuable for this use.

Shells in one form are, undoubtedly, as good as in another for the prevention or destruction of insects, and in no form of any use. Tobacco smoke, tobacco water, and the vapor or steam of tobacco water are the sure destructives of aphids.

SEEDLING BEGONIAS—AMARYLLIS

Will you tell me if seedling Begonias are of the same distinctive variety as the parent plant? In my case I planted seeds of *Begonia Weltoniensis alba*, one seed-pod fresh from the plant. I have fifty or sixty little plants, and would give away a quantity if they are all alike. I should tell you that the plant stood on a stand with another variety of *Begonia*, but I do not know that there were insects or bees to mix the pollen. I always find plenty of things I want to know in every month's paper.

Can you tell me anything of *Amaryllis striata*? I have a fine bulb sent by a friend in Georgia, and I do not know whether to lay it away till spring or to pot it at once.—M. C. B., *Triplett Mo.*

Seedlings of distinct species, if hybridization has not been effected, are like the parent, or true to the species. In the example here given, however, the parent plant is itself a variety, and, even if not crossed with the plant standing beside it, its seedlings should be expected to differ.

The *Amaryllis* bulb having now been rested can be repotted as soon as desired. Use a pot of only medium size, drain well, take a soil of sandy loam well enriched, water sparingly for a time, or until the flower stem appears, and then more freely,

PEACH AND PLUM PITS.

Where can I get the information how to grow successfully, Peach and Plum pits, in this climate where we have not cold weather to freeze them. If you will tell me I will be much obliged.—S. S. M., *Auburn, Cal.*

When the fruit-stones have been collected bury them a few inches deep in the soil, in a spot where they will keep moist, and then leave them until the next season, when the heaviest rains have passed, or until corn planting time. Then take them up, carefully crack them with a hammer and remove the kernels, and mix them with moist soil. In this condition they should be kept but a few days at the most, and the sooner they are in the ground the better. Sow them an inch or two deep in drills in good mellow soil, the drills or rows being about three feet distant, and the pits dropped about six inches apart. They will make their appearance above ground in two or three weeks. The process can be hastened by sowing the kernels a month earlier in a cold-frame, and then transplanting the little plants when an inch or so high.

ORNAMENTAL HEDGE.

Will you be kind enough to inform me of the best hedge to separate a back from a front yard? Would a Rose hedge be pretty, and what kinds should be used?—MRS. T. L., *Shelbyville, Tenn.*

The Cherokee Rose is often used as a hedge plant at the South, and southern nurserymen usually keep it in stock. Japan Quince makes an excellent and lasting hedge, and bears a profusion of bloom in spring. The *Althæa*, or *Hibiscus Syriacus* makes a fine hedge and gives plenty of bloom toward the last of summer. Good flowering hedges can be made of shrubs, especially the *Spiræas*, *Weigelas*, *Deutzias* and Tree Honey-suckles. In Tennessee, and farther south, *Euonymus Japonica* makes a fine evergreen hedge.

YELLOW CALLA.

Will you please give directions for the treatment of the Yellow Calla Lily. I have one that puts forth two leaves each summer and that is all, no bloom.—M. MARDOCK.

The Yellow Calla, *Richardia hastata*, should be dried off at the close of summer, and be given a rest. The tuber can be allowed to remain in the soil of the pot, or, when fully ripe it can be removed and kept in dry sand, in a place secure from frost, until about mid-win-

ter, when it should be repotted in fresh, rich soil, and be given a moderate heat until started, when it can have a somewhat warmer place, and be supplied plentifully with water.

PARNASSIA CAROLINIANA.

The following interesting note has been received, together with a handsome specimen of *Parnassia Caroliniana*, in answer to our request, in the last number, for pressed specimens of *Parnassia*, and the donor will please receive our thanks for his kind attentions. Perhaps some of our readers who may find these plants, next summer, will supply us with other species of them.

I respond most cheerfully to your request for pressed specimens of *Parnassia*. The enclosed was taken from the rocks near the Grand Falls of the river St. John, not far from the boundary line between Maine and New Brunswick. I make it out to be *Parnassia Caroliniana*; gathered August 27th, 1876, so it is very dry and may be reduced to dust before you get it. When growing it is a most beautiful plant, the slender stalks standing quite erect, surmounted by the beautiful star-like flower. This specimen is about nine inches long, and I have in my collection another from the same locality fourteen inches long. It is a shy bit of vegetation found growing in clefts and crevices of rocks in almost inaccessible spots. What seem, in the dried flower, to be pellucid veins, appear in the growing plant to be greenish stripes, lengthwise the deep and rich cream colored petals. The sight of a square yard of such bloom must be seen to be appreciated.—S. H. PARSONS, *Montreal, Que.*

PURPLE FRINGE NOT FRINGING.

Will you please inform me what is the matter with our Purple Fringe? We set it out five years ago, and have transplanted it once. It blossoms full every spring, but the fringe does not form. While in blossom it is covered with myriads of insects of various kinds, and soon the blossoms all crumble away in your hand, and there is no fringe. I began to think it must be the insects, and two years ago I used insect powder, but that did no good, and last spring I covered the tree with mosquito netting, but could not keep the insects from crawling up underneath. I also used the insect powder again; but still without success. Will you please tell me in your MAGAZINE what the trouble is, and the remedy, if any?—MRS. S. C. W., *Knowlesville, N. Y.*

This plant, *Rhus Cotinus*, belongs to a family which is variable in the form of its flowers, they being sometimes perfect, and, sometimes, the pistillate and staminate flowers are separate individuals. Sometimes a plant bears both pistillate and staminate, or perfect flowers; and again it has only one kind of flower. What flowers are borne by the plant in question can only be determined by examination at the time of bloom. If a

piece of a blooming branch should be sent us next spring it is probable that its true character can be learned.

WINTER BLOOMING NARCISSUS.

Please tell me what to do with my *Narcissus* bulbs that are blooming now.—MRS. M. M. I.

After blooming reduce the amount of water daily supplied to the plants, but keeping them in the same temperature as when blooming, and exposing them fully to the light. In these conditions the bulbs will ripen. When the leaves show signs of turning yellow give but the smallest quantity of water until the bulbs are quite dried off. The pots can then be placed away almost anywhere, not exposed to frost or water. The bulbs can remain in the soil in the pots until August, and then be planted out in the open border. Bulbs should not be used the second time for pot culture. What has now been said concerning the *Narcissus* is equally applicable to other Dutch bulbs that have bloomed in the house.

A POEM AND ITS AUTHOR.

Several years ago I learned the following sweet little poem of the "Moss Rose," and would very much like to have it in the Magazine, and would also like to know its author—if according to your rules.—MRS. J. R. L., *Alexander, N. Y.*

THE MOSS ROSE.

The angel of the flowers one day,
Beneath a Rose-tree sleeping lay,—
That spirit to whose charge 'tis given
To bathe young buds in dew of heaven;
Awaking from his light repose,
The angel whispered to the Rose:
"O fondest object of my care,
Still fairest found, where all are fair;
For the sweet shade thou giv'st to me
Ask what thou wilt, 'tis granted thee."
"Then," said the Rose, with deepened glow,
"On me another grace bestow."
The spirit paused in silent thought,
What grace was there that flower had not?
'Twas but a moment,—o'er the Rose
A veil of moss the angel throws,
And, robed in Nature's simplest weed,
Could there a flower that Rose exceed?

The above lines are a translation from the German of KRUMMACHER, the theologian and poet.

PILLOW FLOWER PIECE.

Please state in your next issue the proper place for a pillow flower-piece. Should it be placed at the head or foot of the casket? We have a florist here that places this funeral emblem at the foot of the casket.—A READER.

A pillow piece cannot, with propriety, be placed anywhere but at the head of the casket. It is, with good taste, usually placed on a small stand at the head.

FLORAL ORNAMENTS.

I wish you would tell us how to make the beautiful wreaths and crosses, and all the lovely things that that can be formed with flowers for the loved ones dead. Are all kinds of Geranium leaves and green Myrtle pretty or suitable to use when you can not get any flowers?



DOUBLE CROWN.

I see some of your correspondents are complaining of "slip beggars." O, dear friends, don't you know it is "more blessed to give than to receive?" I would not give one cent for flowers if I could not share them with my "dear five hundred friends." Have any of you a Madam Pollock Geranium? Then



THREE LINKS.

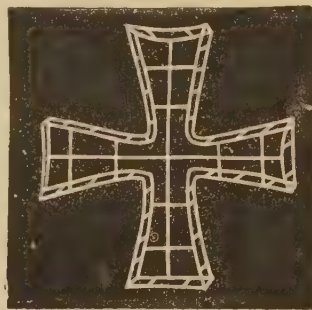
you know how handsome it is. I had a nice large one once, and my friends liked it so well that I have only a little piece left, and it is a pleasure to see how nicely it is growing again. Dear friends of the MAGAZINE, let us try to look on the bright side of things, for "every cloud has a silvery lining." — AUNT MARIA.



WREATH AND STAR.

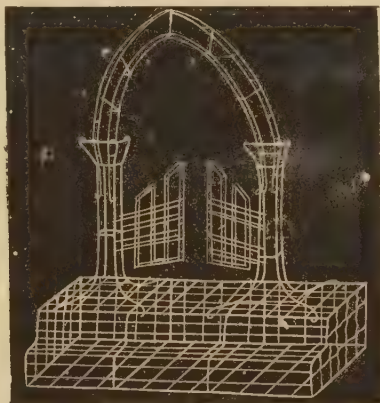
Floral ornaments are almost entirely constructed upon frame-works of wire, by florists, who usually keep these frames for sale, consequently they can be obtained in almost every large village. The frames are filled with sphagnum or fine moss, which is slightly moistened, and is

then a suitable base upon which to fix the flowers, and to keep them fresh for some time. Each flower or spray of



MALTESE CROSS.

flowers is fastened with a bit of thread or very fine wire to a short wooden peg, and is then thrust into the moss in the place it is to occupy. The pegs usually employed for this purpose are the com-



GATE'S AJAR.

mon wooden tooth-picks cut in two in the middle, each pick making two pegs. Fresh green foliage of almost any kind can appropriately be used.

AN ACCEPTABLE PAPER.—*Good Cheer* is an acceptable paper. A parent need have no fear of placing it in the children's hands without first scanning its pages. My little boys generally get the first perusal of every month's issue.—M. C. B., *Triplet, Mo.*

At the Astor wedding in New York, in November last, over ten thousand rare Roses were used in decorating the rooms, besides an immense number and variety of other flowers.

VICK'S PRIZE POTATO.—Your Prize Potato is the best Potato in cultivation, and the best cropper.—W. W., *Coal Valley, Illinois.*

THOSE "ROCKERIES."

I want to say a word about those "rockeries" that offend the good taste of our friend, E. E. REXFORD.

I bought a place that had a monstrous circular bed on each side of the front walk, and these beds were walled eighteen inches high with great stones, and the crevices filled with smaller ones; all of which had borne many coats of whitewash, as had also every tree in the front yard; no plant had ever been allowed to drape the sides of these rockeries. In recommending the place to me, the owner said, "These rockeries, now, they cost me a heap of money to haul the stone and the making up." I asked, "Why did you use stone, why not have made low walls of brick or boards or sods?" "O, my wife, she thought the stones looked sort of clean like and solid. I made them beds four years ago, and they are better now than they was. There's no wear out to a rockery; get it made onct, and it is there as long as you want it."

Everywhere I go, far and near, in the country, I see such walls to flower beds, great and small, on the lawns. With some, a little pains is taken to select different varieties of stone, but if coarse, rough stones must be used whitewash is given to cover the ugly appearance.

I think the only intention is to make a wall that shall be permanent to hold the soil. A cultivated taste in flower-culture would suggest a covering of foliage, but many a poor, tired woman has but little time, or thinks so, at least, to give her flowers, and is only too glad to get a permanent wall for her beds. A neighbor of mine has big beds and little beds, all here and there, over her large yard, and every one stone-walled and every one whitewashed at the time of spring cleaning, as also flower pots and stumps and trees. It is neatness that guides her brush to freshen everything about the place once a year. These beds are called rockeries, simply because they are walled with rocks.

I did not immediately move those on the place I bought, but instead of the small stones the crevices were filled with wild Violets, Fragarias, Tradescantias, Sedums in as many sorts as I could get, and Oxalis Ortigiesi which once planted seeds itself everywhere—Kenilworth Ivy also does the same and covers stones rapidly,

also German Ivy and Portulaca and Verbena do well. Please, Mr. REXFORD, do not think of "rockeries" when you pass your neighbor's yard, but give her some plants to drape with.—ROSINA A. HOLTON, *Smithville, Ill.*

NEW ORLEANS EXPOSITION.

As I am spending a little time at the "World's Industrial and Cotton Centennial," I send you a few notes respecting the horticultural exhibits, thinking they may prove interesting to your readers. Much had been said respecting the immature state of the exhibition at the opening, and doubtless very correctly; but it should not be forgotten that it was conceived only nine months since, as a local Cotton exhibit, and that it has grown steadily upon the hands of its managers to a magnitude that, at the start, was not contemplated. Transcending, as it doubtless does, any and all its predecessors, the preparations might appropriately have consumed an additional year.

This seems to be the first attempt at a thoroughly comprehensive horticultural exhibit in connection with an international exposition; and this is, in fact, the only one of our great cities at which a winter display of northern as well as southern horticultural products, continuing through a lengthened period, would be possible.

In a hall six hundred feet long, and over one hundred feet in width, may be seen grouped together the fruits of the entire country. The Strawberry and the Cranberry, as well as the Apple and the Pear of the extreme north vie with the Orange, the Lemon, the Guava, the Pine Apple, the Tamarind and the Cocoa of the south; while the fruits of old England and those of rock-bound Maine, blush side by side with the paler and milder products of Oregon, California, Mexico and Honduras.

Great, and in many cases surprising, as are the modifications effected upon fruits by the diverse soils and climates of these widely separated countries, even greater and more surprising to the unaccustomed observer, are the differences with which nature clothes the surfaces of these soils in the forms of trees and plants, many of which are shown here in great profusion, and among them are the Cacti of Mexico.

Grouped around the great central fountain in the hall are a considerable number of Cocoa trees, one of which, perhaps forty feet high, bears a crop of half grown nuts while adjacent are two Banyan or Indian Fig trees, fully twelve feet in height, already sending down their characteristic aerial roots from the branches to the ground. But lest I weary, other remarks are postponed to a subsequent time.—T. T. LYON.

PROBABLY BURIED SEED.

As we were riding along the banks of the Canabassett river, a noisy little tributary of the Kennebec, our driver hearing us speak of different flowers, said: "Just wait, and in a few minutes I will show you the biggest flower garden that ever you saw."

Before long, we came to a track of some four thousand acres, over which lumbering operations had been carried on some years ago, leaving a tangled mass of limbs and underbrush. On June 8th, of the past year, a fire broke out and swept over this entire tract, lasting for two weeks, and burning with such fury that it was almost impossible for the stage to travel along the road. The driver said that the new vegetation began to start in three weeks after the fire, and as we drove along, August 14th, our road passing through this track for four miles, the whole region, as far as the eye could reach, over hill and valley, ridge and interval, was one mass of color from the "Fireweed," *Epilobium angustifolium*. It looked, as one of the party said, as if the earth were covered four or five feet deep with a pink snow. The sight was one never to be forgotten.

Now comes the query, Where did the plants come from? The region had been thoroughly burned over two months before, so that but little other vegetation had survived; the seeds are very light and feathery, and the driver had noticed none in the previous years.—J. W. CHICKERING, in *Botanical Gazette*.

A PARABLE OF THE PANSY.

A German friend related to me a pretty fantasy which I have never seen in print. It will please all lovers of the cheerful, charming Hearts-ease, which all love for its brightness and its constancy. The German story makes the five petals of

the flower represent a step-mother with two children of her own—the two side petals—and two of her husband's—the two upper ones which differ in complexion from the other three. Stepmothers often, and very naturally, favor their own children more than they really wish or mean to, and the flower shows an example of it. By turning to the sepals at the back we see that the stepmother herself—the large lower petal—has two of the five—two chairs to sit upon. Her own children have a chair apiece; but the two step-children are obliged to do with but one chair between them.—W.

HORTICULTURE IN BOSTON.

At the first meeting in the New Year of the Massachusetts Horticultural Society, January 3d, the chair was occupied by the newly elected President, JAMES B. MOORE. JOHN E. RUSSELL read a paper on climate, from which the following extract is made:

"The sudden changes in our climate are its most noticeable characteristics, of which we had an instance the previous week, when the thermometer varied 40° in twenty-four hours. Our winters are terribly trying to nerves and tempers, and sometimes it seems as if we might as well abandon the country to the wild beasts who possessed it before the coming of Europeans. But when we have waited for the miracles of the spring we find, in a few magnificent days, a compensation for all the discomfort of winter. The season is short, but neither the shores of the Mediterranean nor the Pacific nor the fringed islands of Palms have weather so beautiful as our June days. It was in such days that the Pilgrims wrote back to England of the beauty of the country. RUFUS CHOATE described our climate as hot to-day and cold to-morrow—to-day a drought in New Hampshire and to-morrow a flood in Maine, but the sixty days of hot Corn weather are pretty likely to be measured out, and the 25th of November, being Thursday, a grateful people gather around their abundant boards to give thanks for the bountiful harvest. Whatever the drawbacks of the climate, we are comforted by the growth of men, and often quote HANNAH MORE'S lines:

'Man is the nobler growth our realm supplies,
And souls are ripened in these northern skies'

MY TREASURES.

Homely and humble, these my cottage rooms ;
 No fine upholstery or gilded walls,
 No woven threads from Persia's costly looms,
 No fair, arched entrance into stately halls ;

No marble Clytie, with its frozen veins,
 All bloodless, wandering over snowy breast ;
 But, one sweet Cupid, touched with richer stains
 Of rosy life on lip and cheek and crest ;

With shining curls whose spirals catch the glow
 Of every sunbeam—this my kingly boy,
 And my one window, wisely made for show
 Of greenest foliage—these insure me joy.

And yet another—look the vista through—
 See yonder, with the red upon his cheek,
 And sleeping laughter in his eyes of blue,
 And strength that dreams no honest effort weak,

The sturdy keeper of this garnered bliss,
 Who lives for those he loves, who made this wild
 A garden spot, well paid by wifely kiss,
 Or the sweet chatter of a happy child.

He made my cottage window, framed in vines,
 Where gladness laughs in every lusty leaf,
 Where Fuchsias hang their bells, and Pansies shine,
 Like violet eyes touched with some tender grief.

Here blooms the Rose, and there the spicy Pink,
 Here lifts the Calla, grand and pure and fair,
 And here sit I, to read or work or think,
 Or twine bright flowers in baby's golden hair.

Call me not poor, such treasure-trove is mine !
 With flowers and fruits in loving likeness blent ;
 My child, my husband and my household shrine,
 The wealth of boundless love and sweet content.

—MARY A. DENISON, *Palmer, Fla.*

CUBAN LILY.

in answer to M. P. H., Atlanta, Ill., in January. *MAGAZINE*, in regard to the Cuban Lily, I think it is a *Pancratium Illyricum*, at least, it grows that way, with white, fragrant flowers. The bulb is large, and resembles that of *Amaryllis longifolia*, but the leaves grow like those of *Amaryllis Vallota*, but longer, and of light green color. They have been sold here by fruit venders on South Water street, in large quantities, at from twenty-five cents to one dollar and fifty cents each, according to size. I bought two of them at the time, and have one yet. One of them flowered the first year, but not since. I would also like to know what to do with it.

The seeds received of you a year ago proved to be good, all but the Borecole, or Kale, which was not curled. The leaves were like *Ruta Baga* leaves. The flower seeds were splendid, the Asters, Pansies and Stocks were the admiration of the village, my country place. The *Salpiglossis* and *Brachycome* you don't

praise half enough ; if your readers knew their beauty they would be grown more than they are. My house plants in the city don't do very well ; the only plants that will grow is *Amaryllis Vallota purpurea*, *Aspidistra lurida*, *Othonna crassifolia* and *Tradescantia guianensis*, the others died out ; but the above flowered to perfection.—X. Y. B., *Chicago, Ill.*

POTATO CROPS.

From a half bushel Boston Markets, planted in the spring of 1883, I gathered three bushels selected Potatoes, that I planted the past season, and gathered sixty-three bushels selected Potatoes. From a half bushel Early Gems, planted in the spring of 1883, I gathered three bushels, all selected Potatoes, that I planted the past season, and gathered forty-five bushels selected Potatoes. From one bushel Chicago Markets, planted in the spring of 1883, I gathered nine bushels selected Potatoes, these I planted the past season, and gathered two hundred and ten bushels selected Potatoes, these were very fine, in fact, the best that were grown in my neighborhood. All these Potatoes I have on hand, and will plant the most of them next season. I wish to say further that I consider the Boston Market and Early Gem to be very early Potatoes, earlier than the Ohio, and a great deal more productive. The Chicago Market, with us is about the same as Early Rose in earliness, but is a much better yielder. Outside of my early varieties, I shall plant Chicago Markets. I shall try some of your other varieties, this spring, Vick's Extra Early, at least.—M. V. H., *Linwood, O.*

INTERESTING EXPERIMENT.

That is a promising and easily tested experiment that is now going the newspaper rounds, that of inserting cut flowers of *Tuberoses* in analine dye of a suitable shade to give them a fine rose or other color ; an excellent way of giving school-goers a useful object lesson is by placing the flower in a clear flask in the school room window, where the light will make it almost translucent. I make a diary note of it, to be tried next September at home. and then, if it is a success, and teachers approve of it, to repeat it in the schools after they open.—W.

FAITH AND WORKS.

December, 1884.

DEAR FRIEND: "We regret to inform you that your subscription to VICK'S ILLUSTRATED MONTHLY MAGAZINE expires with the December number."

A very polite note, friend VICK, but I don't like it; I don't deserve it, either, for I have taken the MAGAZINE from its first number, and have had it bound annually, until I now have in my book-case seven royal volumes of the work. I supposed you knew, by that peculiar intuition which editors are thought to possess, that, like a serial story, my subscription was "to be continued." It is to be continued, for it's not in my plan to step down and out of your list of subscribers, though I feel as though I ought to punish you a little for sending me the above note, which, after due reflection, I have concluded to do in this way. You are to enter upon your books my subscription to the MAGAZINE for six years, or until 1890, and I herewith provide for payment of the same. We'll see whether I am a friend to it or not. I may be dead long before my subscription expires, but keep sending it, somebody will get it, and somebody will read it, and everybody be wiser and better for it. There, I feel better.—E. HUFTELEN, *Le Roy, New York*.

Our old friend's faith in editorial intuition is quite flattering, especially after so long an acquaintance, and a feeling of sadness comes over us as we think that we have made him a victim of misplaced confidence. It is rare to see faith accompanied with so abundant good works as in this case, and if we could only inspire "a hundred thousand more" in the same way, we should think that our labor had not been in vain.

MEALY BUG.

W. F. E., of Knightville, Maine, writes us of his trials with mealy bug, and his experiments in destroying it. Many substances were tried without success. "But," he writes, "I prepared a strong solution of saltpetre, and by way of flavoring soaked a card of matches in the liquid, and then I was ready for my final attack." The liquid was applied to the insects by a feather dipped into it, and with the effect of killing them. When, as in this case, the insects only trouble a few plants, there is no better way than to take a small brush and some soap and water and wash and brush them off, and one need not trouble himself about any destructive liquid or mixture. But when mealy bug is to be dealt with on a large scale, there is no better course than to apply forcibly with a force pump, or fountain pump, or with a syringe through a stream nozzle, the kerosene emulsion prepared as follows: One quart of soft soap and two gallons of milk are heated

to a boiling point, and when cool one gallon of kerosene is added, and all stirred together. This mixture can be kept on hand ready for use at any time. When used, take whatever amount of it is necessary, and dilute it with twenty times its volume of water.

EARLY PEAS.

I notice it stated that a certain new Pea to be sent out this year was fit to pick, last season, ten days before Day's Early Sunrise; but surely there is nothing very remarkable in that, seeing that Day's Early Sunrise is quite that much later than Ringleader. The fact is that in point of earliness we have not gained a single day in the case of any of the new introductions for these last thirty years." So says a writer in *The Garden*, and his statement is undoubtedly true. With the early varieties now employed, the gardener must secure his early crops by the proper combination, as factors, of the terms, soil, manure, time of planting and cultivation.

A FEW NOTES.

The beautiful illustration of the Trumpet Creeper, in a recent number of the MAGAZINE, induces me to give its readers an idea of its habits out here. In the East I had seldom seen it in flower, and paid fifty cents for a plant. It is admirable on arbors or fences, but to see it in its glory one must go along the Missouri river, where it will sometimes cover an old tree, and at times show a pyramid of scarlet and green; at other times it will be noticed against the lofty cliffs facing the south, covering, perhaps, a thousand square feet. When in full blaze, with the green foliage and grayish rocks as a background, and the sun's rays falling upon it at the proper angle it is a sight worth seeing; it may well be called gorgeous. This is the bright side of the picture, and now for the other.

When the autumnal frosts settle down upon us these beauties fade, the leaves fall off and nothing is left but the serpentine vine and the long dangling seed-pods hanging there, which have a dull, melancholy sound as they rattle in the breeze, and are a pretty good indicator of foul weather. But the worst is to come; these pods burst after a while, and the seeds are carried by the wind all over the rich bottom lands, and become a very

pest. I have seen ten thousand seedlings on an acre, and they are hard to destroy, as, if cut by the plow a foot deep, they will sprout again. They also get on the highlands, where they are nearly as great a nuisance. This shows what a nice thing it is in its proper place, and what a nuisance it is where too plenty.

Moore's Diamond Grape is perfectly hardy here, and a healthy, vigorous grower. The fruit, however, rotted the past season, as did nearly all varieties.—S. MILLER, *Bluffton, Mo.*

MARIGOLDS IN WINTER.

French Marigolds, with a little care, may be lifted and potted without losing a leaf or showing signs of distress in any way, and they will keep on blooming almost as well as if undisturbed. About a month ago I lifted a plant by way of experiment, cramming the roots into a pot just large enough to hold them, and that plant now carries a score of bright flowers, while those in the open air blackened by frost. Marigolds show themselves off to great advantage under glass at this time of the year, December, when the beauty of the out-door garden is over. Those having conservatories to decorate would find them useful, and it would be worth while putting out a few plants expressly for that purpose, setting them a foot apart, so as to admit of their forming compact, dwarf, bush-like specimens. Plants which have bloomed through the summer and autumn will, however, do very well, taking care to pot them up before autumnal frosts tarnish their beauty. There is a great difference in the growth of the various strains of

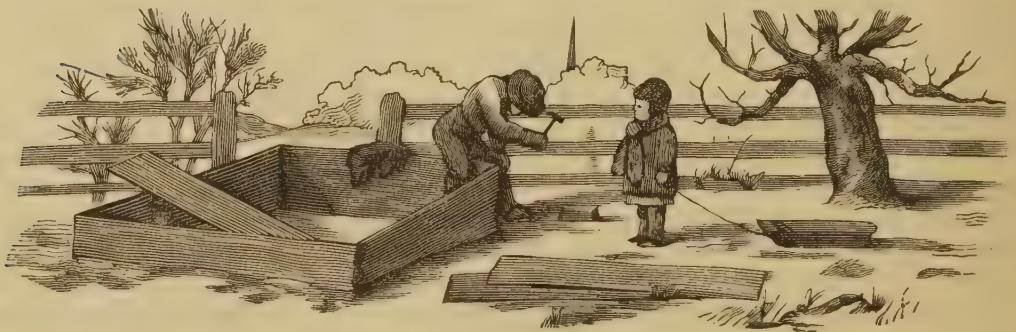
Marigolds. Some not running more than nine inches to a foot in height, others attaining a height of eighteen inches, whilst the Scotch strains grow even taller. I think the dwarf-habited strains, with moderate-sized blooms far before the more robust - growing, large - flowered ones.—I. C. B., in *The Garden*.

ANNA MARIA'S HOUSE KEEPING.

The mere announcement to the readers of this MAGAZINE that one of its popular contributors, SUSAN POWER, has written a book on house-keeping subjects, will make it eagerly sought, we think, as it should be, by many of them. The book is a volume of three hundred and fifty pages, entitled, *Anna Maria's Housekeeping*, by Mrs. S. D. POWER, author of *Children's Etiquette*, *Ugly Girl Papers*, etc.; Boston, D. Lothrop and Company. Price \$1.00. The book is characterized by good strong common sense, and is most entertaining reading, with valuable thoughts for house-keepers in every paragraph. It should form a part of every household library, and no gift to a bride can be more serviceable than this, if its words of wisdom are heeded.

CENTAUREA GYMNOCARPA.

Last spring we wanted plants of *Centaurea gymnocarpa*, Dusty Miller, to border Geranium beds. We sent for two packages of seed, and planted one package under glass, the first of March. From that package we raised one hundred and thirty-five strong, healthy plants, or enough to border a number of beds.—V. V.



OUR YOUNG PEOPLE.

STELLA RAY'S JOURNAL.

January 1, 1885.

It is evening now, and in the quiet of my own room I open my broad-leaved journal and begin to write with a sense of real satisfaction in its possession, despite all the banterings I have endured on the subject. Even to-day, brother Will has lost no opportunity of hinting that I must be on the alert for items to put in my journal. But I shall do nothing of the kind. I love to write whenever I have the least excuse for putting pen to paper, and so I shall record, without effort, such ideas and interests as may chance to be uppermost.

In this connection, there flashes to mind a memory of Carrie Stone, who, when we two were but twelve years of age, sat in this room one evening and whisked out of her satchel a blank book and pencil along with her night dress, and announcing that she was "keeping a journal," fell to writing furiously. I was quite awed with a sense of her capacity for what seemed so far beyond anything I had yet undertaken. Finally, she handed me the book, telling me to read what she had written, and this is what I read:

"Wednesday evening. We had a very pleasant journey, to-day; to-night we stopped at Dr. Ray's all night. Stella is not so tall as I thought she would be; some girls grow better looking when they grow older, and some don't; we had a nice supper and breakfast, and I slept lovely all night."

Something in this record tingled my cheeks and loosened my tongue, and I exclaimed:

"But you haven't slept yet, nor had breakfast; how can you write about what has not happened?"

"O, that's all right," she answered, "I shan't have time in the morning, you know."

But it turned out that she had cholera morbus all night, and ate no breakfast at all, all of which was promptly reported to Will, who went off into shouts of mer-

rimint. From that time he has cherished a grand scorn for private journals.

Carrie has improved much since then, but two years ago she wrote me that she was about to take up the study of Uclid. I was too disgusted to reply, and so our correspondence ended.

Last evening, Will and I had a party of our friends here, and mamma made everything as delightful for us as possible. To-day, Will made some New Year's calls, but was home, at papa's request, to a late dinner. I was weary, and preferred to keep closed doors for myself, and help mamma entertain our very worthy English neighbors, who were invited to dine with us.

Miss Haven represented her entire stock of house plants, having brought mamma a sprig from each of her pots, tied together with ribbon, and wearing at her throat a bunch of Jerusalem Cherries, with leaves. I was so curious about her sweet-smelling herbs that she told me their names, which I tried to fix in memory and will record, viz.: Winter Savory, Thyme, Bergamot, Rosemary, Lavender, Balm, Sweet Marjoram and Sweet Basil. Her brother, noting my interest, remarked that in their garden she has Caraway, Coriander and Dill, besides "a large patch of medical yarbs, comprising Hoarhound, Wormwood, Rue, Hyssop, Tansy, Elecampane, Pennyroyal, Spearmint and Peppermint; all of which she brews into a syrup, which cures simple ailments." Then, turning to papa, he said:

"But it don't reach my gout, Doctor; it takes you to rout that out. In fact, I've been telling the neighbors for sometime past that I expect to live as long as Dr. Ray does."

"You will probably live much longer," said papa, with one of those pathetic smiles that always come over his face when speaking of himself. I'd rather he'd look sad outright. I glanced at Will, but he noticed nothing. Since mamma opened my eyes regarding him I can

realize how my handsome brother, who wins all hearts by his unvarying brightness and amiability, is not going to see anything he does not wish to see. Then I looked at mamma, but she was telling Miss Haven about her Christmas calls on needy families. Finally, I heard her say :

"In one house we found the mother and children eating their Christmas dinner at the sick man's bedside, and on the table, Miss Haven, there was certainly one of your plum puddings. I wish you could have seen the smile on the sick man's starved-looking face while telling me that he shouted 'glory, 'allelujah,' when he saw the steaming pudding brought into the room."

Miss Haven explained that her brother had known the man's people in England, and learning that he was thrown out of his earnings by illness, had therefore called to see him.

But now it is half past ten, and I must close my journal. Dear me, how I have scribbled away in it this first time, and what company it is going to be for me.

January 3. Yesterday I helped mamma repair Will's wardrobe, preparatory to his return to college; and this morning, Saturday, he left us in gay spirits, even smiling genially upon poor Mehitable as he bade her good bye.

After he left, I told papa, in a dreary sort of way, I fear, that I should be ready to commence teaching Harvey and Effie on Monday, if he still desired me to do so. I suppose he felt my lack of interest, for he inquired if my heart was in it, and I frankly confessed it was not; but added, that if I could be allowed to improvise a sort of kindergarten-plan, I might, perhaps, manage to amuse myself while teaching the children something, too. He quite approved of my suggestion, and thanked me so earnestly for trying to carry out his wish in the matter that the tears sprang to my eyes, and from that moment the dreaded task has seemed brighter.

I spent most of the day in collecting and arranging in my room a few things preparatory to the coming lessons. Mamma thought I had better use the library for instruction-room, but I greatly prefer the entire privacy of my own apartment. She looked at me attentively, and said a few cheery words, hoping, I sup-

pose, to call out a responsive light into my face; but I only remarked, dryly,

"I don't wonder you said 'Yes,' when papa asked you to marry him, for it seems impossible to refuse him anything."

January 8. Monday morning, when looking up my pupils, mamma opened a door revealing Effie holding a hand-glass before Mehitable, whom she had trigged up like a great doll in all sorts of furbelows, and both were merrily laughing. Of course, it was a suggestive picture, two innocents together, but I was in no mood to appreciate anything beyond the imagined irksomeness of my new duties. As for Mehitable, I had begun to feel disgusted, because she had not shown more signs of improvement under my thorough application of electricity. I suppose now that I must have been looking for a miracle, expecting her to suddenly break out into singing, or something of that sort, while receiving treatment.

But I was going to say, that when the two children entered my room that first morning, I overheard Harvey, saying :

"Ho! I'm not afraid of Stella; I can do as I please in this school." I called him to me, and said :

"Yes, Harvey, you can do as you please; but if you don't please to behave like a little gentleman, I shall hand you right over to papa."

That settled the matter, and he is giving me no trouble. I shall not confide my method of instruction, if, indeed, I have a method, to these pages until I shall have had a month's experience, or more, in which to test it. Of one thing I am sure, and that is, that teaching is not my forte.

January 13. At last, I have received a short letter from Will. It seems that he and three friends decided to club together and take their meals at a private table in the great dining-room of the "Ladies' Hall," having their own rooms elsewhere. Then they agreed upon the selection of four girls for "table mates," and sent them notes of invitation to join their table, which honor was accepted. Then they all met by appointment, and cast lots to decide who should act as carver, and who should serve the tea and coffee, and it so happened that the former office fell to Will and the latter to his table-mate. He writes that this arrangement, so domestic and home-like, is carried out

at a dozen or more tables. One group is composed only of girls who clubbed together, calling theirs the "Old Maids' Table," and they, he says, seem to have the best time of all.

January 15. I do wonder what sort of a thing that table-mate of Will's is! I do believe I'm jealous of her. Of course, she can't help falling desperately in love with such a splendid fellow on finding herself his choice among so many. I hope she will act so silly about him that he will become disgusted with her.

January 19. As I glance over my last remarks, I feel they are quite unworthy my better self. I often have a sense of there being two of me, my real and true self, and another self which sometimes gets uppermost, and which my better self despises.

I have just brought up my pot or Rosemary, and set it here on my writing table, hoping the fragrance and beauty of its presence may charm away all wrongful feelings.

January 22. That last sentence sounds very pretty; but, of course, I know that if the heart is all wrong the true correction must be within myself.

I wonder how long mamma is going to keep *Mehitable* here.

January 26. Last night grandpa Starr's night-bell rang through the house about midnight, and mamma and I both rushed to his room, and found him very sick with disordered stomach. Papa was away,

but mamma is a very good doctor herself, and generally knows just what to do. She soon detected a strong odor in what he threw up, as of some strange medicine, but could learn nothing definite about it. His mind has seemed to be failing somewhat for the last six months, and he has fallen into the habit of wanting a great many private interviews with papa, and follows him around until he is gratified. It is wonderful how patient papa is with him. Mamma thinks he humors him more than if he were his own father instead of hers.

January 28. I have just come from giving *Mehitable* electricity, and feel rather cross. I do wish papa wouldn't treat me in such a respectful sort of way, as though he thought me possessed of all the sense and judgment of a matured woman, thus compelling me to be on the alert to present only the very best side of me to him, lest he be disappointed in me; while the truth is, a great deal of the child is in me yet, as my journal will prove, if I continue to write so at random.

January 31. I have just read that in Longfellow's *Evangeline* there are one hundred and fifty references to different plants. I shall have to test the truth of this statement for myself before I fully accept it.

Another letter from Will and one from Auntie Starr with which to round up the month.—MARIA BARRET BUTLER.

CURIOUS GEMS AND CURIOUS INSECTS.

Curious old gems are the scarabs, which were carved by the ancients, and the one which we are about to describe is over three thousand years old. It was taken from an Egyptian mummy, afterwards found by an American gentleman who was traveling in foreign climes. He purchased the stone, and on his return to America brought it with many other antiquities and curiosities. After having it in his possession for a time, he presented it to a friend who had the strange old stone set as a ring. This rare and curious gem is of sard, or carnelian, partially opaque, carved, as its name implies, in imitation of a beetle on one side, and on the other, in most delicate tracery, a pair of scales. This stone, which is very plainly set in gold, revolves on a pivot, thus enabling its owner to have which-

ever side he may please turned outward. It is valued, however, more for its great antiquity than for its beauty, but there is a peculiarity about it which at once attracts attention.

Stones of various kinds carved as beetles were very generally used by the ancients as jewels, some strung as bracelets or necklaces, others worn as amulets.

These scarabs are usually pierced through their long axis, that they may thus be set on pivots for rings, or jewels of various kinds, as the one already described. They were greatly prized by the ancients, the carving, in some instances, being extremely delicate, in others of a ruder style. Scarab, or scarabæus, was regarded as a sacred emblem by the Egyptians, Phœnecians and Etruscans, and a species of scarabæus



sacer was looked upon by them with great reverence, hence its name.

There are several thousand species of beetles, some exceedingly ugly and almost repulsive in appearance; others beautiful for their brilliant coloring. Some are so formed that they can dig far down into the earth, where they do much damage to vegetable growth; others, called Scavenger Beetles, subsist on various kinds of refuse matter, and

are of great use in removing such substances. Another species, called *Anthobii*, is far more dainty in its tastes, for it feasts on flowers, instead of such coarse substances as its neighbors, the Scavenger Beetles. Thus we see that these insects are useful and curious, and the strange old gems which were carved in imitation of them in times past may well be prized for their great age as for their curiosity.—M. E. WHITTEMORE, *New York*.

AMONG THE PINES.

In October and November the residents of the little towns beyond the lines of railroad, which are pushing farther and farther every year toward the vast tracts of Pine land, located in the northern part of Wisconsin, and in Michigan, see heavily loaded wagons go by, drawn by strong horses, or equally strong but less active oxen. These loads consist of pork, beef, flour, tea, coffee, sugar,

syrup, beans, potatoes, bed clothing, logging sleds, stoves, pike and peevy poles, cross-cut saws, axes, feed for horses and cattle, and other things "too numerous to mention;" an assortment as miscellaneous as the contents of the traditional country store. A stranger, one who was not familiar with life in the pinery, as the Pine woods are called by all western people, would be at a loss to understand

what such a collection of articles was being taken into the woods for. If he were to ask the people living in these little towns, they would answer,

"Oh, these are supplies for the pinery. They're going to start camp, you know."

Camp is "started" early in the season, before the intensely cold weather of winter sets in. Often these camps are fifty, sixty or a hundred miles from a town of any size, and as the "supplies" are bought in great quantities they are sent in by teams from the places in which



MAIN ROAD INTO THE PINERY.

they were bought, so that "tote-teams," as the drivers of these teams are called, are constantly on the road from early in the fall to the breaking up of the camp in spring, taking in one load of supplies and returning the next day for more. When you think of from fifty to two hundred men in one camp, all of them with the healthy appetites of hard-workers, you will see at once that a good many teams must be kept busy in bringing in food for them. The air of the Pine woods acts as a tonic and an appetizer, and men that go in the pineries poor in flesh, in the fall, usually come out in spring as fat as bears. If you were to ask them if they could eat well while in the woods, they would most likely reply,

"Eat! That's no name for it. Why, you see, a fellow in the pinery wants to be putting down grub all the time. You wouldn't call it eating, if you were to see us mowing the victuals away. We never leave anything on the table, except the dishes, and we'd swallow them, I s'pose, if we thought we could digest 'em."

Roads leading into the wilderness, which, in summer, are traveled only by the Indian and the game he is in pursuit of, are, in winter, the busy thoroughfares of the northwest. There is generally one long main road, extending through the vast tracks of Pine in which many camps are located. From this main road, other roads branch off to the camps on either side. This main road always keeps close to the river to whose banks the logs are drawn, and down which they are taken in the spring.

The "shanty," as the camp is called, is always built of rough logs, "chinked" between the openings with pieces of timber split from smaller logs. The cracks between the "chinks" and the logs are either filled in with moss procured from swampy places, or "mudded" up. To "mud up" a shanty you dig clay and soften it with water to the consistency of soft mortar. With a trowel made of a piece of board this mud is plastered over the cracks. It soon hardens, and keeps out most effectually the wind and snow, which the pinery boys of our northwest are so familiar with. If the "crew," as the men employed in a lumber camp are always called, is a small one, the shanty is small with a one-sided, sloping roof of bark or "shakes," which are pieces split from Pine or Cedar logs; they are flat, about an inch in thickness, and as wide as it is possible to make them from the log selected, which must be straight-grained to split well. They are laid on like shingles, over poles running across the rafters, and make a good roof if care is taken in laying them. If the crew is a large one, the building is shaped like an ordinary log house, only lower. On both sides of the building "bunks" are built. These bunks are on the plan of berths in a steamboat or sleeping car, and are generally three deep, each bunk being wide enough to accommodate two men. They are made by setting up posts the width of a bunk from the wall; pieces of board are then nailed from them to the wall,

thus forming the enclosure of the space allotted for each bed. Slats are nailed across between the head and foot, and over these Hemlock boughs are generally spread to the depth of five or six inches. Sometimes marsh hay is used, but Hemlock is generally preferred, because of its cleanliness and its agreeable smell. Over these a blanket is spread, and the pinery boy knows no other mattress, and cares for no better one. He is always tired when night comes, and he can sleep as well on a bed of boughs as he could on one of the softest feathers.

In the center of the shanty, (or the "men's shanty," perhaps I ought to have said, as this description regarding the interior refers particularly to the building occupied by the men for lounging and sleeping purposes, and is, therefore, regarded as their especial property,) stands the "heater." This is a stove of great size, made of sheet iron. A box, a foot in depth, and five or six feet square, is fastened to the shanty floor, and filled in with clay or sand. On this the stove, which has no bottom, is placed. A hinged lid on top admits large sticks or chunks of wood, and through the long winter evenings a roaring fire is kept burning, making the shanty as warm a place as one needs to be in. Rough

benches are ranged along in front of the bunks, and on these, or lounging in the bunks, the men sit and smoke after supper, singing songs, telling stories and cracking jokes, until it comes time to "turn in."

A lumber camp is generally a jolly place. A lack of reading develops the faculty for story-telling. A good story-teller, and a man who can sing a great many songs, it is not at all necessary that he should be a good singer, however, is always sure to be popular among "the boys." The songs most popular are such as refer to thrilling experiences "by flood and field," songs of action rather than of sentiment. They consist, for the most part, of many verses, and one tune, with skillful variations, will fit most of them. If there happens to be a chorus, the whole crew joins in with a will, and the effect is more powerful than artistic. A stranger cannot fail to be highly entertained by an evening spent in a lumber camp. He will be almost certain to have plenty of jokes made at his expense, but he will join in the general laugh that follows them, if he is wise. If he resents them, the boys will take great delight in "badgering him," and he will be glad to get away on the first opportunity for doing so.—EBEN E. REXFORD, *Shi-octon, Wis.*

PRIZE ESSAYS FOR 1885.

The prizes offered for Essays, last year, resulted in the publication in our pages of some of the best thoughts on horticultural topics of persons practically engaged in the operations of which they wrote. We again take this method of calling out the most valuable and reliable experience on subjects that will interest a variety of readers.

For the best well written article on each of the following subjects, we offer to pay in seeds and plants selected from our FLORAL GUIDE, the sums as respectively stated.

1. What agencies and methods can the residents of villages employ to secure the practical effects of the most advanced ideas of sanitation, and the proper horticultural embellishment of streets and grounds? Twenty-five Dollars.

2. How can the Rose be best managed as a house plant, and what varieties are most suitable for that purpose? Twenty Dollars.

3. How can Asparagus be best and most economically raised for market, and what are the details of cultivation, gathering, packing and marketing? Twenty Dollars.

5. What varieties of Peas are most profitable for the market gardener, and what most desirable for the table, and what are the best methods of cultivation in each case? Twenty Dollars.

6. What practices can be most successfully employed to secure the Apple orchards from the codling moth? Twenty Dollars.

7. Is the Mushroom, any where in this country, raised extensively for market, or can it be so raised to advantage, and, if so, in what manner? Twenty Dollars.

8. What salad plants are most desirable, and by what manner of cultivation can a family be best supplied with them from a private garden? Fifteen Dollars.

10. What is the best method of treatment in the propagation and cultivation of the Cyclamen to secure fine blooming plants? Fifteen Dollars.

11. How can the finest pot-plants of Chrysanthemums be raised, and what varieties are desirable? Fifteen Dollars.

12. How can amateurs without greenhouses keep up a winter supply of Violets and Pansies? Fifteen Dollars.

Manuscripts should be here by the first of March. Committees of at least three persons each, selected for their competency as judges on the various subjects, will decide on the merits of all contributions and award the prizes.

The prize communications will in due time be published, and those not accepted will be at the disposal of the writers. Those wishing unaccepted articles returned will please so state, but any left in our possession will be examined, and anything of special interest will be published, giving the author credit. Announcement of prizes will be made immediately after the awards.